UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF
AIR AND RADIATION

Mr. Kevin Foley
Acting General Manager
UAE Lowell Power LLC
50 Tice Boulevard
Woodcliff Lake, NJ 07675

Dear Mr. Foley,

This letter represents U. S. EPA's official determination of applicability under §72.6(c) of the Acid Rain regulations for Unit 1 at the UAE Lowell Power LLC plant ("Lowell"), ORISPL 054586, in Massachusetts, which is owned by United American Energy Corporation (UAE). This determination is made in response to UAE's March 2, 2001 request for a determination. In its March 2, 2001 letter, UAE also requests that, if the unit is subject to the Acid Rain Program, the deadline for compliance for the unit be extended from January 1, 2000 to July 1, 2001 to provide additional time for upgrading of the unit's continuous emission monitoring system (CEMS).

Background

Lowell Unit 1 commenced commercial operation in 1993 and sold electricity and steam. This unit includes a 88 MWe combustion turbine that is capable of combusting natural gas and fuel oil and exhausts into a heat recovery steam generator (HRSG). The HRSG, in turn, serves a 27 MWe steam turbine, for a total of 115 MWe nameplate capacity for the unit. Steam can be extracted from the steam turbine for use in industrial processing. At commencement of operation, the unit had power purchase agreements to sell electricity to Boston Edison Company (Boston Edison) and Massachusetts Municipal Wholesale Electric Company (MMWEC) and a steam purchase agreement to sell steam to M/A Com for the production of electrical components. The unit used energy sequentially in that some of the energy used to generate electricity was also used to produce steam for processing. The unit therefore qualified as a "cogeneration facility" under §72.2, i.e., a unit that has "equipment used to produce electric energy and forms of useful thermal energy (such as heat or steam) for industrial, commercial, heating or cooling purposes, through sequential use of energy" (40 CFR 72.2 (definition of cogeneration unit)). [1]

[1] In a prior decision concerning Cayuga Energy, Inc.'s Carthage Energy Facility and South Glens Energy Facility, issued on July 2, 2000, EPA stated that a unit that was constructed to cogenerate and that later stopped producing process steam and produced only electricity no longer qualified as a cogeneration unit. EPA has reconsidered and now rejects that approach to applying the definition of "cogeneration facility" in §72.2. That definition (which is quoted above) focuses on the presence of equipment necessary

Sections 402(17)(A) and 405(g)(6)(A)of the Clean Air Act include provisions discussing in detail the conditions under which a cogeneration unit is exempt from the Acid Rain Program. See, e.g., 42 U.S.C. 7651d(g)(6)(A) (stating that Clean Air Act title IV does not apply to qualifying cogeneration facility that meets certain conditions as of November 15, 1990, the date of enactment of title IV). EPA interprets these provisions, and §§72.2 and 72.6 of the regulations implementing the provisions, to provide that a cogeneration unit used to produce electricity for sale is a utility unit and thus subject to the Acid Rain Program, unless the unit meets the requirements for an exemption as set forth in §72.6(b).

Applicability of the Acid Rain Program to Lowell

UAE states that Lowell Unit 1 was initially exempt from the Acid Rain Program under §72.6(b)(5), which applies to a qualifying facility with qualifying power purchase commitment. According to UAE, the unit was a qualifying cogeneration facility (under section 3(17)(C) of the Federal Power Act) with a "qualifying power purchase commitment" (as defined under §72.2) to sell electricity to both Boston Edison Company (Boston Edison) and the Massachusetts Municipal Wholesale Electric Co. (MMWEC), and steam to M/A Com and therefore was an unaffected unit. [2] However, according to UAE, the unit lost its qualifying facility status on April 30, 1999. In addition, the power purchase agreements with Boston Edison and MMWEC were terminated on April 30,1999, and the unit continued to sell electricity, but to other purchasers in the market. EPA finds that the unit has not had a "qualifying power purchase commitment," and has not qualified as an unaffected unit under 40 CFR 72.6(b)(5), since at least April 30, 1999. [3]

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to cogenerate, and Syracuse Unit 1 still has such equipment.
Further, EPA maintains that in general a unit's status under the applicability criteria for the Acid Rain Program should not be based on a factor (here, whether the unit is, at a particular time, selling process steam) that can be altered prospectively by a unit's owners and operators. If the owners and operators could change the status of a unit by stopping or later restarting the unit's process steam sales, this would make it much more difficult to determine whether the unit was covered by the program during a given control period and therefore could significantly interfere with administration of the program.

[2] EPA is not addressing here the question of whether Lowell Unit 1 was exempt before termination of the power purchase agreements with Boston Edison and MMWEC .

[3] From April 30, 1999 to the present, Lowell Unit 1 has continued to have a steam purchase agreement but no electric purchase agreement. However, an electric power purchase obligation is central to the concept of a "qualifying power purchase commitment" and without the former, a unit does not have the latter. In particular, a "power purchase commitment" is defined as a "commitment or obligation of a utility to purchase electric power from a facility under certain types of arrangements. 40 CFR 72.2 (definition of "power purchase commitment"). Further, any change in the terms or conditions of a power purchase commitment that "allow the costs of compliance with the Acid Rain Program to be shifted to the purchaser" means that there no longer is a "qualifying power purchase commitment." 40 CFR 72.2 (definition of "qualifying power purchase commitment"). If the obligation to purchase electricity is eliminated and electricity sales are at market prices, all the terms and conditions associated with electric

Furthermore, the unit does not meet the requirements for an exemption under §72.4(b)(4). Under that provision, the exemption is available to a cogeneration unit that commenced construction after November 15, 1990 and that did not provide electricity for sale on an annual basis in an amount more than one-third of its potential electrical output capacity (PEOC) or more than 219,000 MWe-hours. In addition to this initial sales criterion, a unit then must not have sales exceeding this threshold on a rolling three-year average basis.

As discussed above, Lowell Unit 1 is a cogeneration unit that commenced construction after November 15, 1990. The unit's PEOC is 73.44 MWe [4], and one-third of the unit's PEOC is 214,445 MWe-hours. [5] In the first year of operation (1993), the unit sold 375,560 MWe-hours, which exceeds the 219,000 MWe-hours threshold. The unit, therefore, failed in 1993 to meet the initial sales criterion for an exemption under §72.6(b)(4) of supplying less than the threshold amount of electricity and, unless exempt under some other provision (e.g., §72.6(b)(5)), became an affected unit.

EPA notes that the unit continued to have annual electricity sales in excess of 219,000 MWe-hours and that, in 2000, the unit's annual sales were less than the threshold for initial sales. However, this does not qualify the unit for an exemption under §72.6(b)(4). Section 402(17)(C) of the Clean Air Act, which is the statutory basis for that exemption, states that a cogeneration unit is not an affected utility unit "unless the unit is constructed for the purpose of supplying, or commences construction after [November 15, 1990] and supplies, more than" the threshold amount of electricity. 42 U.S.C. 7651a(17)(C). Consequently, once a unit (such as Lowell Unit 1) supplies more than the threshold amount of electricity in any year, that unit becomes an affected unit under title IV of the Clean Air Act. Moreover, section 402(17)(C) does not state that a unit that supplies more than the threshold amount in one year can subsequently regain its exempt status by supplying an amount of electricity equal to or less than the threshold. Consistent with section 402(17)(C), EPA interprets §72.6(b)(4) as providing that Lowell Unit 1 lost the exemption in 1993 and is an affected unit regardless of its level of electricity sales after 1993. EPA maintains that this approach is reasonable, in addition to being consistent with the statute. Under the approach that once units become affected units, the units remain affected units, owners and operators cannot move their units at will in and out of an exemption and thus in and out of the Acid Rain Program. As discussed above in connection with the definition of "cogeneration facility," to the extent owners and operators have the ability to change prospectively the status of a unit under the

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sales (including sales price) are removed. In that case, it is difficult to see how there can be a basis for concluding that costs cannot be shifted to a new purchaser of electricity, which is the basis for the exemption under §72.6(b)(5). See March 22, 1990 Congressional Record at S3027-28 (statement by Senator Wirth that "[g]randfathering these units is fair" because they are "under contract or have accepted price bids" and so cannot "pass on extra costs of allowances the way a regulated utility can.").

[4] The PEOC equals the unit's maximum design heat input capacity of 752 x 10^6 Btu/hr times 1/3 (reflecting the assumed efficiency rate for the unit), divided by 3413 (reflecting the assumed heat rate), and divided by 1000 (converting to MWe). See 40 CFR part 72, appendix D.

[5] This figure is calculated by multiplying the PEOC by 8760 (the number of hours in a year) and then multiplying again by 1/3.

applicability criteria of the Acid Rain Program, this would make administration of the program much more difficult. For all of the above reasons, EPA concludes that, because of the failure of Lowell Unit 1 to meet the initial sales criteria, the unit is not exempt under §72.6(b)(4) and is an affected unit under the Acid Rain Program.

Lowell Unit 1 combusts fossil fuels (natural gas and oil) and commenced operation in 1993 and therefore is a "new unit" (i.e., a "fossil fuel fired combustion device" that "commences commercial operation on or after November 15, 1990"). 40 CFR 72.2 (definition of "new unit"). As discussed above, the unit has been an affected unit under the Acid Rain Program since at least April 30,1999, when the agreements to provide electricity to Boston Edison and MMWEC were terminated. As an affected unit, Lowell Unit 1 must comply with all applicable requirements under the Acid Rain Program, including the requirements to apply for and receive an Acid Rain Permit (under 40 CFR part 72), to monitor and report sulfur dioxide, nitrogen oxide, and carbon dioxide emissions and heat input (under 40 CFR part 75), and to hold allowances to cover sulfur dioxide emissions (under 40 CFR part 72 and 73).

Extension of Deadline for Compliance With Acid Rain Program

UAE also requests that EPA extend the "applicability date" for Lowell Unit 1 be extended from January 1, 2000 to July 1, 2001 in order to allow time "to upgrade both the software and hardware portions" of the unit's emission monitoring system. UAE's March 2, 2001 petition at 2. In its request, UAE is apparently referring to the January 1, 2000 deadline for compliance with the requirement under the Acid Rain Program to hold allowances at least equal to Lowell Unit 1's sulfur dioxide emissions. As noted above, the unit is an affected unit subject to a number of Acid Rain Program requirements, which may have different deadlines for compliance. For example, the unit was required to have certified monitoring systems under Part 75 within 90 days of the date the unit became an affected unit. See 40 CFR 72.6(a)(v) and 75.4(c)(2). The unit was an affected unit at least since April 30,1999. Further, the unit was required to meet the allowance-holding requirement starting January 1, 2000. See 40 CFR 72.9(c)(3)(iv).

UAE does not cite any provision of the Acid Rain Program regulations under which the company may request, or under which EPA is authorized to grant, an extension of the allowance-holding requirement. EPA maintains that the Agency does not have any such authority. Section 403(e) of the Clean Air Act requires "new utility units" (i.e., affected units, like Lowell Unit 1, that commence commercial operation after November 15, 1990) to hold allowances covering emissions "after January 1, 2000." 42 U.S.C. 7651b(e). Moreover, even if EPA had such extension authority, there would be no basis for such an extension since the unit has been required to monitor its sulfur dioxide emissions since at least April 30,1999.

Finally, UAE states that it has a nitrogen oxide monitoring system certified under the Ozone Transport Commission NOx Budget Program. UAE requests guidance from EPA concerning the use of that monitoring system for monitoring nitrogen oxide under the Acid Rain Program and seeks to meet with EPA staff to discuss "implementation strategy and timing." UAE's March 2, 2001 letter at 2. EPA staff is available to provide guidance and to discuss any monitoring and other issues concerning Acid

Rain Program requirements. For questions concerning monitoring issues, please contact Theresa Alexander of EPA's Clean Air Market Division at (202) 564-9747.

EPA's determinations in this letter rely on the accuracy and completeness of the information provided by UAE in submissions dated March 2 and April 30, 2001, and are appealable under Part 78. The applicable regulations (40 CFR 72.6(c)(1)) require you to send copies of this letter to each owner and operator of Lowell Unit 1. If you have any further questions concerning this letter or general question concerning the Acid Rain Program, please contact Martin Husk of EPA's Clean Air Markets Division at (202) 564-9165.

Sincerely,

Brian J. McLean, Director
Clean Air Markets Division

cc: Ian Cohen, USEPA Region 1
Karen Regis, Massachusetts DEP
Amy Lapusata, Massachusetts DEP